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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,285	10/30/2001	Won-Suk Heo	671-4 (P9937)	9126
28249	7590	06/14/2005	EXAMINER	
DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. UNIONDALE, NY 11553			FILE, ERIN M	
			ART UNIT	PAPER NUMBER
			2634	

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/020,285

Applicant(s)

WON-SUK HEO

Examiner

Erin M. File

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8, 9, 15-19 and 25 is/are rejected.
- 7) ☒ Claim(s) 5-7, 10-14 and 20-24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

1. The abstract of the disclosure is objected to because of the use of the acronyms UMTS and OVSF in line 2. The acronyms should be properly defined as Universal Mobile Telecommunications System (UMTS) and Orthogonal Variable Spreading Factor (OVSF). Correction is required. See MPEP § 608.01(b).
2. The disclosure is objected to because of the following informalities: on page 8, line 28, the recitation "or code determined by the *opimum* search function", should be replaced by "or code determined by the *optimum* search function".  
Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 3, 8, 9, 15-19, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Imbeni et al.

**Claims 1, 16**, Imbeni et al discloses a telecommunications system in which a plurality of channelization codes in the form of a tree structure having a plurality of sub-trees (fig. 3, 4). Imbeni does not expressly use the term flag, however, the allocating of busy status can be interpreted as a flag status (col. 4, lines 45-63). A code level, or spreading factor level, of a call request is received (fig. 2, 2) and it is determined whether a free code should be allocated, or a allocated code is needed to be freed (fig. 2, step 5). In steps 10 and 11, the code is selected and allocated which preserves the highest number of free codes on lower levels. This systematic determination and assignment of codes so as to maximize the available orthogonal codes is code assignment optimization (applicant's disclosure, p. 10, lines 5-11).

**Claims 2, 17**, inherit the limitations of Claims 1 and 16 respectively. Imbeni further discloses receiving a code (fig. 2, 2) and if it is determined that a specified code should be released (fig. 2, 5) the unavailable code is reassigned and the current assignment is reallocated to a higher code (fig. 2, 6, 7).

**Claim 3**, inherits the limitations of Claim 2, Imbeni further discloses an example in which at least one of the codes is allocated and maintained (col. 7 line 66 – col. 8 line 15).

**Claims 8, 18**, inherit the limitations of Claims 1 and 16 respectively, Imbeni discloses a process which it is determined whether the root code family for which the requested code has any available codes (fig. 2, 3). If there is a code available (fig. 2, 9) the optimal available code will be selected (fig. 2, 9, 10) and allocated (fig. 2, 11).

**Claims 9, 19**, inherit the limitations of Claims 8 and 18 respectively, Imbeni discloses that if the code which is requested is unavailable the request is either blocked or sent to another tree, which can be interpreted as a message that it is unavailable.

**Claims 15, 25**, inherit the limitations of Claims 1 and 16 respectively, Imbeni further discloses that the selection of the optimized code is done by selecting the code which maximizes the probability of future code availability (fig. 2, 10, 11), thereby maximizing the probability of maintaining current assignments.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 4, rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claim 4**, the recitation, "wherein the one or more channelization code numbers are assigned to one or more channelization codes located above at least one channelization code corresponding to the at least one of the plurality of channelization code numbers in the tree structure", is unclear in meaning and therefore rendered vague and indefinite.

#### ***Claim Objections***

7. Claims 5-7, 10-14, 20-24 are objected to as dependent upon rejected claims, but would be allowable if rewritten in independent form.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erin M. File whose telephone number is (571)272-6040. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (571)272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

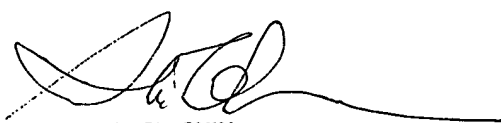
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Erin M. File



6/7/2005



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SUPERVISORY PATENT EXAMINE  
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